Flood Control Project Maintenance

2016 Structure Summary Report

Overall Unit and Item Ratings

Lake County Watershed Protection District

Clover Creek Diversion Structure

Overall Un

nit Rating	Rated Item	Item Rating
L	Photo Documentation	N
	Vegetation & Obstructions	Α
	Shoaling / Sedimentation	Α
	Erosion / Bank Caving	Α
	Revetments	N
	Encroachments	Α
	Culverts: Inlets / Outlets	М
	Culverts: Breaks / Holes / Cracks	Α
	Metal Pipes	Α
	Trash Racks	N
	Flap Gates	N
	Sluice/Slide Gates	Α
	Electric Gate Operators	N
	Manual Gate Operators	Α
	Concrete Surfaces	Α
	Concrete Tilting / Settlement	Α
	Concrete Foundations	Α
	Security Fencing	N
	Closure Structures	N
	Trash Rakes	N
	Other Metallic Items	Α
	Monolith Joints	N
	Safety	Α
	Operation & Maintenance Manual	Α

Flood Control Project Maintenance

Unit Cover Sheet

2016 Structure Inspection Results

Lake County Watershed Protection District

Structure	
Clover Creek Diversion Structure	

Structure Rating	Α
Date of Inspection	8/9/2016
DWR Inspector	Pavel Kazi
Accompanied By	

Levee Inspection Report By Mile - Structure 2016

Lake County Watershed Protection District

Structure	Structure Length	Inspection Start/End	Inspector
Clover Creek Diversion Structure		08/09/2016 08/09/2016	Pavel Kazi

LM Start	0.00	Rating **	N	Issue No.	1		
LM End	0.00	Issue Type +	Ma	Location *			
Category	Structures & Concrete Lined			GPS Latitude/Longitude			
Channels			Start		End		
Item	Photo Do	Photo Documentation		39.1770	50°	39.177050°	
пеш				-122.8987	50°	-122.898750 °	
DWR ID	DWR_NA0009_36_t _ 2012_1						
Action/Comments							

Inspector Comments: Clover Creek Diversion Structure has three culverts with two slide gates, and a gate to divert the water during high water season.

Photo 1 of 1: ST_2016_NA0009_36_1_20160810_00011.jpg



View of the structure.

LM Start	0.00	Rating **	Α	Issue No.	2		
LM End	0.00	Issue Type +	Ма	Location *			
Category	Structures & Concrete Lined		GPS Latitude/Longitude		le/Longitude		
Calegory	Channels		Start		End		
Item	Vegetatio	Vegetation & Obstructions		39.1770	50°	39.177050	٥
пеш				-122.8987	50°	-122.898750	٥
DWR ID	DWR NAO	009_36_t _ 201	2 2				

Action/Comments

Inspector Comments: The channel had minimal vegetation and scattered obstructions, but the flow is not impeded.

Photo 1 of 2 : ST_2016_NA0009_36_2_20160811_00013.jpg
W.Du
A STATE OF THE STA



View of the vegetation at the inlet of the structure.

LM Start	0.00	Rating **	Α	Issue No.	2 (cont)
LM End	0.00	Issue Type +	Ma	Location *	

Photo 2 of 2: ST_2016_NA0009_36_2_20160811_00012.jpg



View of the vegetation at the outlet of the structure.

Location LS: Land Side WS: Water Side

A: Acceptable Minimally Acceptable U : Unacceptable

N: Not Inspected/Rated Corrected

: Acceptable but Monitor & Maintain

+ Issue Type

Ma : Maintenance Deficiancy Ob: Design & System Obsolescence En: Enforcement

Levee Inspection Report By Mile - Structure 2016

Lake County Watershed Protection District

Structure	Structure Length	Inspection Start/End	Inspector
Clover Creek Diversion Structure		08/09/2016 08/09/2016	Pavel Kazi

LM Start	0.00	Rating **	Α	Issue No.	3		
LM End	0.00	Issue Type +	Ma	Location *			
Catagory	Structures & Concrete Lined		GPS Latitude/Longitude				
Calegory	Category Channels		Start		End		
Item	Shoaling /	Sedimentation	n	39.17705	°	39.177050°	
пеш					°	-122.898750 °	
DWR ID	DWR_NA0	009_36_t _ 201	2_3				
			_				

Action/Comments

Inspector Comments: No sediment was present during the inspection.

No Photos

No Photos

Rating ** Issue No. LM Start 0.00 Α 0.00 Issue Type + Ма Location * LM End Structures & Concrete Lined GPS Latitude/Longitude Category Channels Erosion / Bank Caving 39.177050° 39.177050° Item -122.898750° -122.898750 ° DWR ID DWR_NA0009_36_t _ 2012_4

Action/Comments

Inspector Comments: There was no visible active erosion or bank caving observed.

LM Start	0.00	Rating **	N	Issue No.	5		
LM End	0.00	Issue Type +	Ма	Location *			
Structures & Concrete Lined			GPS Latitude/Longitude				
Calegory	Channels			Start		End	
Item	Revetmer	Revetments		39.1770	50°	39.177050 °	
пеш				-122.8987	50°	-122.898750 °	
DWR ID DWR_NA0009_36_t _ 2012_5					·		
Action/Comments							

Inspector Comments: No revetment exists at this structure.

No Photos

* Location LS : Land Side WS : Water Side

A: Acceptable
M: Minimally Acceptable
U: Unacceptable

N : Not Inspected/Rated C : Corrected A/W : Acceptable but Monitor & Maintain + Issue Type

Ma : Maintenance Deficiancy
Ob : Design & System Obsolescence

Levee Inspection Report By Mile - Structure 2016

Lake County Watershed Protection District

Structure	Structure Length	Inspection Start/End	Inspector
Clover Creek Diversion Structure		08/09/2016 08/09/2016	Pavel Kazi

LM Start	0.00	Rating **	Α	Issue No.		6	
LM End	0.00	Issue Type +	Ма	Location *			
Catagony	Structures & Concrete Lined		GPS Latitude/Longitude		le/Longitude		
Category	Channels	annels		Start		End	
Item	Encroach	ments		39.1770	50°	39.177050	0
пеш				-122.8987	50°	-122.898750	0
DWR ID	DWR_NA0	009_36_t _ 201	2_6				
		A - 1' 1	O	-1-			

Action/Comments

Inspector Comments: No trash or debris were present in the channel.

No Photos

LM Start	0.00	Rating **	М	Issue No.		7
LM End	0.00	Issue Type +	Ma	Location *		
Category	Structures & Concrete Lined		GPS Latitude/Longit		e/Longitude	
Calegory	Channels	inels		Start		End
Item	Culverts:	Inlets / Outlets	5	39.1770	50°	39.177050°
пеш				-122.8987	50°	-122.898750 °
DWR ID	DWR NA0	009 36 t 201	2 7			

Action/Comments

Inspector Comments: Vegetation was found on the outlet culvert of the structure.

LM Start	0.00	Rating **	М	Issue No.	7 (cont)
LM End	0.00	Issue Type +	Ma	Location *	

Photo 1 of 2: ST_2016_NA0009_36_7_20160811_00014.jpg



View of the inlet culvert.

Photo 2 of 2: ST_2016_NA0009_36_7_20160811_00015.jpg



View of the outlet culvert.

Location LS: Land Side WS: Water Side

A: Acceptable M: Minimally Acceptable U : Unacceptable

N: Not Inspected/Rated Corrected A/W : Acceptable but Monitor & Maintain + Issue Type

Ma : Maintenance Deficiancy Ob: Design & System Obsolescence En: Enforcement

Levee Inspection Report By Mile - Structure 2016

Lake County Watershed Protection District

Structure	Structure Length	Inspection Start/End	Inspector
Clover Creek Diversion Structure		08/09/2016 08/09/2016	Pavel Kazi

LM Start	0.00	Rating **	Α	Issue No.	8	
LM End	0.00	Issue Type +	Ma	Location *		
Structures & Concrete Lined			GPS Latitude/Longitude			
Calegory	Channels			Start		End
Item		Breaks / Hole	s/	39.17705	o°	39.177050°
пеш	Cracks			-122.89875	o°	-122.898750 °
DWR ID	DWR_NA0	009_36_t _ 201	2_8			
Action/Comments						

Inspector Comments: There were no visible holes or cracks in the culvert.

LM Start	0.00	Rating **	Α	Issue No.		9	
LM End	0.00	Issue Type +	Ma	Location *			
Category	Structures & Concrete Lined		GPS Latitude/Longitude				
Calegory	Channels	nnels		Start		End	
Item	Metal Pipe	es		39.17705	o°	39.177050	0
item				-122.89875	o°	-122.898750	0
DWR ID	DWR_NA0	009_36_t _ 201	2_9				

Action/Comments

Inspector Comments: The metal pipes appeared to be in good condition.

LM Start	0.00	Rating **	N	Issue No.	10		
LM End	0.00	Issue Type +	Ma	Location *			
Structures & Concrete Lined			GPS Latitude/Longitude				
Calegory	Channels	nnels		Start		End	
Item	Trash Rad	cks		39.1770	50°	39.177050°	
пеш				-122.8987	50°	-122.898750 °	
DWR ID	DWR_NA0	060_36_t _ 201	3_10			·	
	Action/Comments						

Inspector Comments: There are no trash racks at this structure.

No Photos

No Photos

No Photos

* Location LS: Land Side WS: Water Side

A: Acceptable M : Minimally Acceptable U : Unacceptable

N: Not Inspected/Rated C : Corrected A/W : Acceptable but Monitor & Maintain + Issue Type

Ma : Maintenance Deficiancy Ob : Design & System Obsolescence En : Enforcement

Levee Inspection Report By Mile - Structure 2016

Lake County Watershed Protection District

Structure	Structure Length	Inspection Start/End	Inspector
Clover Creek Diversion Structure		08/09/2016 08/09/2016	Pavel Kazi

LM Start	0.00	Rating **	N	Issue No.		11	
LM End	0.00	Issue Type +	Ma	Location *			
Category		s & Concrete I	_ined	GPS La	titud	e/Longitude	
Calegory	Channels	hannels		Start		End	
Item	Flap Gate	s		39.1770	50°	39.177050°	
пеш				-122.8987	50°	-122.898750 °	
DWR ID	DWR_NA0	009_36_t _ 201	2_11				
	A :: 10						

Action/Comments

Inspector Comments: Flap gates don't exist at this structure.

No Photos

LM Start	0.00	Rating **	Α	Issue No.		12
LM End	0.00	Issue Type +	Ma	Location *		
Category		s & Concrete I	_ined	GPS La	titud	le/Longitude
Calegory	Channels	annels		Start		End
Item	Sluice/Slice	de Gates		39.1770	50°	39.177050°
пеш				-122.8987	50°	-122.898750 °
DWR ID	DWR_NA0	009_36_t _ 201	2_12			

Action/Comments

Inspector Comments: The slide gates appeared to be in good working condition.



View of the slide gates.

LM Start	0.00	Rating **	N	Issue No.	13		
LM End	0.00	Issue Type +	Ма	Location *			
Catagory	Structures & Concrete Lined			GPS Latitude/Longitude			
Calegory	Channels	nels		Start		End	
Item	Electric G	ate Operators	1	39.17705	o°	39.177050°	
пеш					o°	-122.898750°	
DWR ID	DWR_NA0	009_36_t _ 201	2_13				
	Action/Comments						

Action/Comments

Inspector Comments: Electric gate operators do not exist at this location.

No Photos

A: Acceptable M: Minimally Acceptable U : Unacceptable

N: Not Inspected/Rated Corrected A/W : Acceptable but Monitor & Maintain + Issue Type

Ma : Maintenance Deficiancy Ob: Design & System Obsolescence

En: Enforcement

Levee Inspection Report By Mile - Structure 2016

Lake County Watershed Protection District

Structure	Structure Length	Inspection Start/End	Inspector
Clover Creek Diversion Structure		08/09/2016 08/09/2016	Pavel Kazi

LM Start	0.00	Rating **	Α	Issue No.	14		
LM End	0.00	Issue Type +	Ma	Location *			
Category	Structures & Concrete Lined			GPS La	titud	le/Longitude	
Calegory	Channels	Channels				End	
Item	Manual G	ate Operators	1	39.1770	50°	39.177050°	
item				-122.8987	50°	-122.898750 °	
DWR ID	DWR_NA0009_36_t _ 2012_14						
Action/Comments							

Inspector Comments: The manual gate operators appeared to be operational.

LM Start	0.00	Rating **	Α	Issue No.	14 (cont)
LM End	0.00	Issue Type +	Ma	Location *	



View of the manual gate operator during 2016 inspection.

Photo 2 of 2: ST_2016_NA0009_36_14_20160613_00008.jpg



View of the manual gate operator during 2013 inspection.

LM Start	0.00	Rating **	Α	Issue No.		15	
LM End	0.00	Issue Type +	Ma	Location *			
Category	Structures & Concrete Lined			GPS La	tituc	le/Longitude	
Calegory	Channels	nels		Start		End	
Item	Concrete	Surfaces		39.1770	50°	39.177050	0
пеш				-122.8987	50 °	-122.898750	0
DWR ID	DWR_NA0	009_36_t _ 201	2_15				
			_				

Action/Comments

Inspector Comments: There was no scaling or cracking on the concrete surfaces.

No Photos

* Location

LS: Land Side

WS: Water Side

CR: Crown

** Rating

A : Acceptable
M : Minimally Acceptable

N: Not Inspected/Rated C: Corrected A/W: Acceptable but Monitor & Maintain

+ Issue Type

Ma : Maintenance Deficiancy
Ob : Design & System Obsolescence

Levee Inspection Report By Mile - Structure 2016

Lake County Watershed Protection District

Structure	Structure Length	Inspection Start/End	Inspector
Clover Creek Diversion Structure		08/09/2016 08/09/2016	Pavel Kazi

LM Start	0.00	Rating **	Α	Issue No.		16	
LM End	0.00	Issue Type +	Ma	Location *			
Catagony	Structures & Concrete Lined Channels			GPS La	atitud	e/Longitude	
Calegory				Start		End	
Item	Concrete	Tilting / Settle	ment	39.1770	50°	39.177050	0
пеш					50°	-122.898750	0
DWR ID	DWR_NA0	009_36_t _ 201	2_16				
	Action/Comments						

Rating **

Inspector Comments: There was no sign of settlement or tilting at this structure.

Issue Type + Ма Location * 0.00 LM End Structures & Concrete Lined GPS Latitude/Longitude Category Channels Concrete Foundations 39.177050° 39.177050°

Α

Issue No.

-122.898750°

-122.898750 °

DWR ID DWR NA0060 36 t 2013 24

0.00

LM Start

Item

Action/Comments

Inspector Comments: There was no scouring or erosion near the structure.

No Photos

No Photos

Issue No. Rating ** LM Start 0.00 18 0.00 Issue Type + Location * LM End Ma Structures & Concrete Lined GPS Latitude/Longitude Category Channels End Start Security Fencing 39.177050° 39.177050 ° Item -122.898750° -122.898750 ° DWR ID DWR_NA0009_36_t _ 2012_18 Action/Comments

Inspector Comments: Security fences do not exist at this location.

No Photos

Location LS: Land Side WS: Water Side

A: Acceptable M: Minimally Acceptable U : Unacceptable

N: Not Inspected/Rated C : Corrected A/W : Acceptable but Monitor & Maintain + Issue Type

Ma : Maintenance Deficiancy Ob: Design & System Obsolescence

Levee Inspection Report By Mile - Structure 2016

Lake County Watershed Protection District

Structure	Structure Length	Inspection Start/End	Inspector
Clover Creek Diversion Structure		08/09/2016 08/09/2016	Pavel Kazi

LM Start	0.00	Rating **	N	Issue No.	19			
LM End	0.00	Issue Type +	Ма	Location *				
Category	Structures & Concrete Lined			GPS Latitude/Longitude				
Calegory	Channels			Start		End		
Item	Closure S	tructures		39.177050	o°	39.177050°		
пеш					°	-122.898750 °		
DWR ID	DWR_NA0	009_36_t _ 201	2_19					
	A = 1' = = 10 = = = = = 1 =							

Action/Comments

Inspector Comments: Closure structure doesn't exist at this location.

No Photos

No Photos

LM Start	0.00	Rating **	N	Issue No.		20
LM End	0.00	Issue Type +	Ma	Location *		
Category	Structures	_ined	GPS Latitude/Longitude			
Calegory	Channels			Start		End
Item	Trash Ral	ces		39.1770	50°	39.177050°
пеш				-122.8987	50°	-122.898750 °
DWR ID	DWR_NA0	009_36_t _ 201	2_20			

Action/Comments

Inspector Comments: There are no trash rakes at this structure.

LM Start	0.00	Rating **	Α	Issue No.		21	
LM End	0.00	Issue Type +	Ma	Location *			
Structures & Concrete Lined				GPS Latitude/Longitude			
Category	Channels		Start		End		
Item	Other Met	allic Items		39.1770	50°	39.177050°	
item				-122.8987	50°	-122.898750 °	
DWR ID	DWR_NA0009_36_t _ 2012_21						
Action/Comments							

Inspector Comments: Metallic parts are appeared to be in a good condition.

No Photos

* Location LS: Land Side WS: Water Side

A: Acceptable M : Minimally Acceptable U : Unacceptable

N: Not Inspected/Rated C : Corrected A/W : Acceptable but Monitor & Maintain + Issue Type

Ma : Maintenance Deficiancy Ob : Design & System Obsolescence En : Enforcement

Levee Inspection Report By Mile - Structure 2016

Lake County Watershed Protection District

Structure	Structure Length	Inspection Start/End	Inspector
Clover Creek Diversion Structure		08/09/2016 08/09/2016	Pavel Kazi

LM Start	0.00	Rating **	N	Issue No.	22		
LM End	0.00	Issue Type +	Ма	Location *			
Cotogoni	Structures & Concrete Lined			GPS Latitude/Longitude			
Calegory	Channels	Channels				End	
Item	Monolith .	Joints		39.17705	0 °	39.177050 °	
пеш					0 °	-122.898750 °	
DWR ID	DWR_NA0	009_36_t _ 201	2_22				
A :: 10							

Action/Comments

Ма

Action/Comments Inspector Comments: New steel handrail was placed around the

Issue No.

Location *

39.177050°

-122.898750°

23

39.177050 °

-122.898750 °

GPS Latitude/Longitude

Inspector Comments: Monolith joints do not exist at this location.

Rating **

Issue Type +

Structures & Concrete Lined

DWR_NA0009_36_t _ 2012_23

structure. No safety hazard was present.

Photo 1 of 2: ST_2016_NA0009_36_23_20160811_00018.jpg

No Photos



View of the handrails on the structure during 2016 inspection.

Photo 2 of 2: ST_2016_NA0009_36_23_20160613_00010.jpg



LM Start	0.00	Rating **	Α	Issue No.	23 (cont)
LM End	0.00	Issue Type +	Ma	Location *	



View of the wooden guard rail during 2013 inspection.

Location LS: Land Side WS: Water Side

LM Start

LM End

Category

Item

DWR ID

0.00

0.00

Channels Safety

> A: Acceptable Minimally Acceptable U : Unacceptable

N: Not Inspected/Rated Corrected : Acceptable but Monitor & Maintain + Issue Type

Ma: Maintenance Deficiancy Ob: Design & System Obsolescence En: Enforcement

Levee Inspection Report By Mile - Structure 2016

Lake County Watershed Protection District

Structure	Structure Length	Inspection Start/End	Inspector
Clover Creek Diversion Structure		08/09/2016 08/09/2016	Pavel Kazi

LM Start	0.00	Rating **	Α	Issue No.	17			
LM End	0.00	Issue Type +	Ma	Location *				
Cotogoni	Structures & Concrete Lined Channels			GPS Latitude/Longitude				
				Start		End		
Item	Operation & Maintenance		39.177050°		39.177050	5		
пеш	Manual			-122.898750 °		-122.898750	0	
DWR ID	ID DWR_NA0060_36_t _ 2013_17							
Action/Comments								
Inspector Comments: This district has the O&M manual in the office.								

No Photos

* Location LS: Land Side WS: Water Side

A : Acceptable
M : Minimally Acceptable
U : Unacceptable

N : Not Inspected/Rated C: Corrected A/W : Acceptable but Monitor & Maintain + Issue Type

Ma : Maintenance Deficiancy Ob : Design & System Obsolescence En : Enforcement